

REMARKS/ARGUMENTS

The above amendments to claims 33-35 are fully supported by the original specification and so do not add any new matter. Specifically, the claim was amended to refer to a fiber rather than a yarn as supported, at page 1, line 5; the definition of “elastic” was incorporated from page 10, lines 9-11; and the limitations of claim 34 were incorporated into claim 33. New claim 53 is supported from original claim 33. As no new matter is sought to be added, their entry is courteously requested.

Lack of Unity of Invention

The Examiner has made an election requirement in accordance with 37 CFR § 1.499, stating, “The special technical feature (STF) of group I is a reversible heat set fiber. The foregoing STF is show[sic] in US 3,315,328 and US 3,487,628 for example. Thus there can be no Unity of invention when the STF is show[sic] in the prior art.” While the Applicants agree that the STF can be classified as a reversed heat set elastic fiber, Applicants respectfully contest the assertion that such fibers are disclosed in US 3,315,328 or 3,487,628.

It should be noted that both of the references cited above relate to segmented polyurethane type fibers known as spandex. As described in the references, and as is generally known in the art, spandex behaves much differently than the fibers described in the present application. Heat setting spandex generally involves breaking the hydrogen bonds which exist between the highly structured crystalline urethane groups. Thus the heat setting process described in these cited references is different from the heat-setting as defined in the present application (see, for example, page 11, lines 1-14, which indicates that the fiber or other article must be heated to at least the lowest temperature at which at least a portion of the crystallites of the polymer are molten). In fact, US 3,315,328 expressly warns against using severe conditions which would permanently stabilize the elastic component (see column 2, line 30). The Applicants suggest that melting the crystallites of spandex would be understood by those of ordinary skill in the art to be an example of “severe conditions” against which US 3,315,328 warns. Accordingly, as none of these references teach or suggest heating the fiber to a temperature at which at least a portion of the crystallites are molen, it is respectfully asserted that the references cited do not disclose the STF. Accordingly, it

is respectfully requested that the claims containing the STF of the reversed heat set fiber (i.e. claims 14-24, 38, 40, 45, 48 and 50) be reinstated.

That said, in order to be fully responsive to the Office Action, Applicants confirm the election of the invention of Group V, claims 33-35.

Claim Rejections – 35 USC §112

Claim 35 was rejected under 35 USC § 112, for being incomplete as the claim was directed towards a method for making a warp beam without including steps to make such a warp beam. Applicants have amended claim 35 to recite a use of the fiber, and so believe that this rejection is now moot.

Claim Rejections – 35 USC§ 103

The Examiner has also rejected claim 33 as being unpatentable over Usdan (US Re 29,572) in light of Price (US Re 28,117). It is clear that these references do not disclose an “elastic” fiber as that term is now defined in the claims. Usdan says only that it is a thermoplastic yarn, but indicates that such yarn is not inherently elastic as it specifies using a twisting and heat-setting technique “to bulk up into a spring-like condition which results in a desirable high-stretch yarn” (col. 1, lines 32-35). Price also specifies “synthetic thermoplastic materials” but gives as examples “nylon and polyester,” neither of which are inherently elastic, as now defined in the Applicants’ present claims.

The Examiner has stated that while Usdan does not explicitly teach the yarn comprises an inelastic fiber, Price does, referring to Col 1, lines 70-71 of Price. This passage in Price, recites “synthetic thermoplastic textile materials such as nylon and polyester are capable...”. This passage is merely listing alternative thermoplastic materials; it does not suggest combining the materials into a single yarn as suggested by the Examiner. Moreover, as explained above neither of these materials would be considered to be elastic as that term was intended, (and now as specifically incorporated into the claims). Thus new claim 53 (which specifies that the elastic fiber is combined with inelastic fiber(s) to make a yarn) appears to be independently patentable over the art of record.

The Examiner has also rejected original claim 34 as being taught by Usdan. The limitation of Claim 34 have been incorporated into claim 33. These limitations require removing the biasing force from the fiber and then exposing the fiber again to a temperature at which at least a portion of the crystallites will melt. Usdan, on the other hand, teaches that its additional heat-set procedure is conducted after the yarn has been wound onto cones,"the yarn having a tension normally associated with cone-wound-yarn" (col 3, lines 18-20). Thus, it is clear that the later exposure to heat in Usdan is not done after the biasing force has been removed, as required by the present claims.

The Examiner recognized the deficiency in Usdan, but relied on Price at col. 2, lines 8-9, stating "The fiber is unwound from the package therefore releasing the stretching force." Price states that the packaged yarns must be "unwound, highly twisted, heat set, untwisted and then repackaged." Applicants respectfully point out that some tension has to be applied in order to "highly" twist the yarn, and so contest the Examiner's assertion that the yarn would remain free from the biasing force during the indicated heat-set procedure. Thus, the prior art does not make this aspect of the present claims obvious either.

Accordingly, Applicants courteously request that the current rejections be withdrawn and that claims 33, 35, and 53 be passed to allowance. Additionally, as claims 14-24, 38, 40, 45, 48 and 50 share the same STF as claim 33 (namely a reversed heat-set elastic fiber), Applicants also request that these claims be passed to allowance.

Respectfully submitted,

James T. Hoppe
Registration No. 35,899
Phone: 979-238-9039

P. O. Box 1967
Midland, MI 48641-1967

JTH/smm